

APPENDIX A

39. **(New)** An isolated nucleic acid molecule comprising the nucleotide sequence set forth in SEQ ID NO:1, or a complement thereof.
40. **(New)** An isolated nucleic acid molecule consisting of the nucleotide sequence set forth in SEQ ID NO:1, or a complement thereof.
41. **(New)** An isolated nucleic acid molecule which encodes a polypeptide comprising the amino acid sequence set forth in SEQ ID NO:2, or a complement thereof.
42. **(New)** An isolated nucleic acid molecule which encodes a polypeptide consisting of the amino acid sequence set forth in SEQ ID NO:2, or a complement thereof.
43. **(New)** An isolated nucleic acid molecule which encodes a resistance polypeptide comprising an amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:2, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of the complement of SEQ ID NO:1 at 6X SSC at 45° C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 50-65° C.
44. **(New)** An isolated nucleic acid molecule which encodes a resistance polypeptide consisting of an amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:2, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of the complement of SEQ ID NO:1 at 6X SSC at 45° C, followed by one or more washes in 0.2X SSC, 0.1% SDS at 50-65° C.
45. **(New)** An isolated nucleic acid molecule comprising a nucleotide sequence which is at least 70% identical to the nucleotide sequence of SEQ ID NO:1, or a complement thereof, wherein said nucleotide sequence encodes a polypeptide which is capable of resistance to a chemical stress.

46. (New) An isolated nucleic acid molecule comprising a nucleotide sequence which is at least 80% identical to the nucleotide sequence of SEQ ID NO:1, or a complement thereof, wherein said nucleotide sequence encodes a polypeptide which is capable of resistance to a chemical stress.

47. (New) An isolated nucleic acid molecule comprising a nucleotide sequence which is at least 90% identical to the nucleotide sequence of SEQ ID NO:1, or a complement thereof, wherein said nucleotide sequence encodes a polypeptide which is capable of resistance to a chemical stress.

48. The isolated nucleic acid molecule of any one of claims 45, 46, or 47, wherein said chemical stress is exposure to an antibiotic.

49. (New) An isolated nucleic acid molecule comprising a nucleotide sequence which is at least 70% identical to the nucleotide sequence of SEQ ID NO:1, or a complement thereof, wherein said nucleotide sequence encodes a polypeptide which is capable of modulating the production of a fine chemical.

50. (New) An isolated nucleic acid molecule comprising a nucleotide sequence which is at least 80% identical to the nucleotide sequence of SEQ ID NO:1, or a complement thereof, wherein said nucleotide sequence encodes a polypeptide which is capable of modulating the production of a fine chemical.

51. (New) An isolated nucleic acid molecule comprising a nucleotide sequence which is at least 90% identical to the nucleotide sequence of SEQ ID NO:1, or a complement thereof, wherein said nucleotide sequence encodes a polypeptide which is capable of modulating the production of a fine chemical.

52. (New) An isolated nucleic acid molecule which encodes a polypeptide fragment comprising at least 100 contiguous amino acid residues of the amino acid sequence of SEQ ID NO:2.

53. (New) An isolated nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence at least 70% identical to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide is a resistance polypeptide and wherein said polypeptide is capable of resistance to a chemical stress.

54. (New) An isolated nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence at least 80% identical to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide is a resistance polypeptide and wherein said polypeptide is capable of resistance to a chemical stress.

55. (New) An isolated nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide is a resistance polypeptide and wherein said polypeptide is capable of resistance to a chemical stress.

56. (New) The isolated nucleic acid molecule of any one of claims 53, 54, or 55, wherein said chemical stress is exposure to an antibiotic.

57. (New) An isolated nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence at least 70% identical to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide is a resistance polypeptide and wherein said polypeptide is capable of modulating the production of a fine chemical.

58. (New) An isolated nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence at least 80% identical to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide is a resistance polypeptide and wherein said polypeptide is capable of modulating the production of a fine chemical.

59. (New) An isolated nucleic acid molecule which encodes a polypeptide comprising an amino acid sequence at least 90% identical to the amino acid sequence of SEQ ID NO:2, wherein said polypeptide is a resistance polypeptide and wherein said polypeptide is capable of modulating the production of a fine chemical.

60. (New) An isolated nucleic acid molecule comprising the nucleic acid molecule of any one of claims 39-42, and a nucleotide sequence encoding a heterologous polypeptide.

61. (New) A vector comprising the nucleic acid molecule of any one of claims 39-42.

62. (New) The vector of claim 61, which is an expression vector.

63. (New) A host cell transfected with the expression vector of claim 62.

64. (New) The host cell of claim 60, wherein said cell is a bacterial cell.

65. (New) The host cell of claim 64, wherein said cell belongs to the genus *Corynebacterium* or *Brevibacterium*.

66. (New) The host cell of claim 65, wherein the expression of said nucleic acid molecule results in the modulation in production of a fine chemical from said cell.

67. (New) The host cell of claim 66, wherein said fine chemical is selected from the group consisting of: organic acids, proteinogenic and nonproteinogenic amino acids, purine and pyrimidine bases, nucleosides, nucleotides, lipids, saturated and unsaturated fatty acids, diols, carbohydrates, aromatic compounds, vitamins, cofactors, polyketides, and enzymes.

68. (New) A method of producing a polypeptide comprising culturing the host cell of claim 63 under conditions in which the nucleic acid molecule is expressed, thereby expressing the polypeptide.

69. (New) A host cell comprising the nucleic acid molecule of SEQ ID NO:1, wherein the regulatory region of the nucleic acid molecule is modified relative to the wild-type regulatory region of the molecule, such that expression of the nucleic acid molecule is altered.

70. (New) An isolated nucleic acid molecule comprising a nucleotide sequence encoding a polypeptide comprising an amino acid sequence which is sufficiently identical to an amino acid of SEQ ID NO:2, such that the polypeptide maintains the ability to resist chemical stress.